

16345000 OPAEULA STREAM NEAR WAHIWA

LOCATION.--Lat 21°33'55", long 158°00'10", Hydrologic Unit 20060000, on left bank, 4.3 mi northeast of Leilehua High School in Wahiawa, and 8.1 mi east of Waialua School.

DRAINAGE AREA.--2.98 mi².

PERIOD OF RECORD.--August 1959 to current year.

REVISED RECORDS.--WSP 1937: 1960.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 1,120 ft above mean sea level (from topographic map).

REMARKS.--Records computed by S.T.M. Young. Records good. No diversion upstream of station.

AVERAGE DISCHARGE.--43 years (water years 1960-2002), 13.5 ft³/s (9,770 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,540 ft³/s, July 17, 1974, gage height, 11.94 ft from rating curve extended above 110 ft³/s on basis of slope-area measurements at gage heights 6.74 ft, 6.98 ft, and 10.12 ft; maximum gage height, 13.20 ft, November 20, 1990; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 27	0400	1,390	6.98				
Jan 29	0245	2,020	8.26	May 6	0730	*3,010	*10.38

Minimum discharge, 0.66 ft³/s, June 15, 16, Sept. 30, gage height, 1.36 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	20	2.6	2.6	34	1.9	2.5	4.8	1.4	9.9	3.5	5.5
2	13	7.2	5.6	2.2	19	1.8	2.1	3.0	1.3	16	2.2	3.8
3	3.9	7.3	3.6	2.0	11	6.1	1.9	2.4	1.2	7.1	1.8	4.1
4	25	11	3.2	1.8	127	4.0	1.8	52	1.2	3.1	1.7	6.9
5	82	8.0	9.1	1.4	42	38	1.7	38	1.2	2.3	8.3	3.4
6	18	19	15	1.2	14	135	1.6	845	1.2	1.7	9.1	2.4
7	9.6	29	7.5	1.7	9.8	83	1.5	206	1.1	1.7	14	4.0
8	10	60	3.5	1.6	26	17	1.3	44	1.1	8.4	10	2.5
9	4.4	12	5.4	1.4	22	11	1.1	36	1.0	12	4.5	1.9
10	3.3	7.9	4.0	1.4	7.9	88	1.1	26	0.87	14	3.4	1.9
11	18	5.8	2.5	1.5	6.3	8.8	1.0	13	0.84	9.2	5.0	3.2
12	16	5.1	2.2	1.4	5.7	5.9	0.93	11	1.4	3.9	38	1.8
13	11	5.2	24	1.1	21	12	0.86	13	1.7	2.6	8.9	1.4
14	9.9	8.1	50	0.94	10	15	0.80	9.1	1.0	1.8	5.6	7.3
15	4.3	5.0	32	0.89	20	6.0	0.78	6.9	0.75	1.6	3.7	7.8
16	6.9	3.8	8.9	0.89	11	9.1	0.75	5.3	0.67	1.5	2.9	4.0
17	9.3	2.9	6.2	0.84	5.6	161	0.77	4.4	0.81	1.8	2.2	2.4
18	3.8	2.5	5.4	0.91	4.7	21	1.4	4.1	3.9	1.9	1.8	1.8
19	2.8	2.3	6.2	1.4	4.1	8.6	2.8	18	20	9.1	1.8	37
20	2.6	2.1	15	2.7	3.7	6.2	25	31	8.1	11	2.4	5.6
21	2.3	1.8	11	20	3.3	5.0	19	13	2.9	3.9	1.9	2.6
22	2.4	1.7	5.6	15	3.0	4.5	4.1	5.8	22	14	1.7	1.8
23	2.5	1.6	54	8.1	2.7	3.9	2.3	4.4	10	4.0	1.6	1.4
24	2.1	1.4	36	2.9	2.4	3.5	1.7	3.7	16	2.4	3.4	1.2
25	1.7	1.3	9.9	1.6	2.4	3.2	4.5	3.2	6.6	4.3	5.0	1.1
26	5.9	1.3	6.1	13	3.0	3.5	23	2.8	2.8	3.0	3.7	0.97
27	46	187	5.0	132	2.6	3.8	12	2.6	1.8	2.2	4.6	0.90
28	95	13	4.0	230	2.1	3.0	7.5	2.4	1.4	4.6	9.2	0.80
29	13	5.1	3.9	392	---	2.7	9.8	2.1	1.1	10	7.7	0.71
30	5.9	3.3	5.2	115	---	2.9	21	1.8	0.96	8.6	25	0.68
31	10	---	3.2	92	---	2.9	1.6	---	6.6	18	---	
TOTAL	500.6	441.7	355.8	1051.47	426.3	678.3	156.59	1416.4	116.30	184.2	212.6	120.86
MEAN	16.1	14.7	11.5	33.9	15.2	21.9	5.22	45.7	3.88	5.94	6.86	4.03
MAX	95	187	54	392	127	161	25	845	22	16	38	37
MIN	1.7	1.3	2.2	0.84	2.1	1.8	0.75	1.6	0.67	1.5	1.6	0.68
AC-FT	993	876	706	2090	846	1350	311	2810	231	365	422	240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2002, BY WATER YEAR (WY)

MEAN	10.9	18.2	15.5	16.3	13.4	19.8	20.2	12.5	7.51	11.6	8.54	7.45
MAX	30.7	71.9	52.6	54.1	66.9	90.0	75.7	45.7	24.9	29.3	31.0	24.9
(WY)	1982	1991	1988	1988	1969	1982	1989	2002	1978	1989	1982	1994
MIN	0.057	2.90	1.29	0.37	0.32	0.35	1.57	1.37	1.59	0.95	1.51	0.52
(WY)	1985	1963	1977	1977	1978	1983	1966	2000	2000	1971	1984	1975

HAWAII, ISLAND OF OAHU

16345000 OPAEULA STREAM NEAR WAHIAWA--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1959 - 2002
ANNUAL TOTAL	3773.50	5661.12	
ANNUAL MEAN	10.3	15.5	
HIGHEST ANNUAL MEAN			13.5
LOWEST ANNUAL MEAN			29.7
HIGHEST DAILY MEAN	187 Nov 27	845 May 6	7.12 1982
LOWEST DAILY MEAN	0.27 Jan 23	0.67 Jun 16	845 May 6 2002
ANNUAL SEVEN-DAY MINIMUM	0.35 Jan 21	0.84 Apr 11	0.00 Jan 24 1977
ANNUAL RUNOFF (AC-FT)	7480	11230	0.00 Oct 24 1984
10 PERCENT EXCEEDS	25	25	9770
50 PERCENT EXCEEDS	5.0	4.0	28
90 PERCENT EXCEEDS	0.95	1.2	4.5
			0.94

